5/04

OPERATION MANUAL

MANUAL NO 057-139-00
REV. K
ECN 19154

LAB-LINE®
COMPACT, LOW COST INCUBATORS

MODEL NO. 100, 100IDE, 100JPN, 100-5JPN, 101, 105, 106, 120, 120JPN, 120-5JPN, 121, 125, 126, 150, 150JPN, 152

Barnstead International
Your Lab Starts Here
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[redacted] TABLE OF CONTENTS [redacted]

SECTION	TITLE
1	Introduction
2	Description
3	Specifications
4	Installation
5	Operation
6	Maintenance
7	Replacement Parts
	Warranty

SECTION 1

INTRODUCTION

THANK YOU

for selecting Lab-Line Instruments for your equipment needs. For maximum value and ease of start-up,

PLEASE PROCEED AS FOLLOWS:

- Inspect the carton and contents for shipping damage. Notify the carrier immediately if damage is found.
- Use the Accessory Checklist when unpacking to verify that the complete unit has been received. Do not discard packing materials until all is accounted for.
- Read this Operation Manual thoroughly *before* deciding upon an appropriate location for the unit: you will want to consider the availability of power and other unit requirements, as well as user convenience.
- Insist that every operator of this unit becomes familiar with the Operation Section of this manual.
- Be sure to fill out the Warranty Registration Card and mail it in to Lab-Line Instruments within seven (7) days after receiving the unit.

IF

after reading this manual you should have any difficulties with the installation or operation instructions, please call:

Lab-Line Customer Relations Department
(563) 556-2241 or (800) 522-5463

ALL RIGHT RESERVED
The information contained in this manual is the exclusive property of Lab-Line Instruments, Inc., and has been pro- vided solely to enable the users of the equipment described herein to operate and maintain such equipment. Any other use of this information, or the reproduction or transmission of all or any portion of this manual without prior written consent of the manufacturer is expressly prohibited. © 2004. Lab-Line Instruments, Inc.

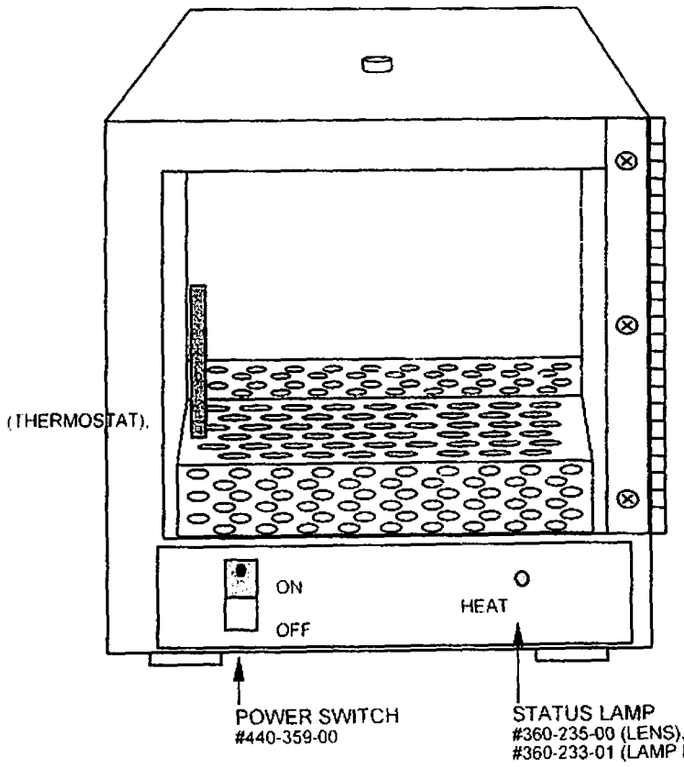
SECTION 2

DESCRIPTION

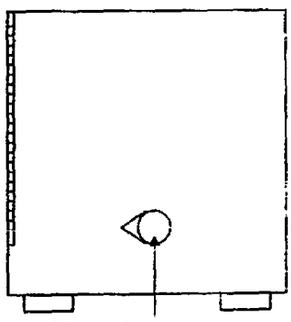
The Lab-Line compact, low cost incubators are useful for biochemical, bacteriological and hematological studies. They provide a controlled environment for growing microorganisms, as well as, for the study of chick and invertebrate embryos.

All models have specially designed heaters to eliminate the hazards of open-wire internal heaters. A pilot light indicates when the heaters are activated. Solid, corrosion resistant aluminum chamber walls with 1-inch (2.5cm) fiberglass insulation help to distribute heat evenly throughout the chamber. Powder coated, durable, heavy gauge steel exteriors make the units easy to clean and maintain. A bimetallic thermostat controls temperature.

Models 105, 106, 125 and 126 have an acrylic outer door but, otherwise, provide the same performance as the other units. Models 150, 150JPN and 152 are Educational Incubators with acrylic outer doors. These units are intended for egg incubation and are not to be used for clinical purposes.



LEFT-SIDE VIEW:



*AS LISTED ON UPCOMING REPLACEMENT PARTS LIST

SECTION 3

SPECIFICATIONS

POWER REQUIREMENTS:	
100, 100IDE, 105, 120, 125:	120VAC, 50/60 Hz, 100 Watts, 0.8 Amps
150:	120VAC, 50/60 Hz, 150 Watts, 1.3 Amps
150JPN:	100VAC, 50/60 Hz, 104 Watts, 1.0 Amps
101, 106, 121, 126:	240VAC, 50/60 Hz, 100 Watts, 0.4 Amps
152:	240VAC, 50/60 Hz, 150 Watts, 0.6 Amps
100JPN, 120JPN:	100VAC, 50/60 Hz, 70 Watts, 0.7 Amps
100-5JPN, 120-5JPN:	100VAC, 50/60 Hz, 100 Watts, 1.0 Amps
TEMPERATURE RANGE:	
100, 100IDE, 100JPN, 101 105, 106:	From slightly above ambient to 40°C
120, 120JPN, 125, 126:	From slightly above ambient to 60°C
150, 150JPN, 152:	From slightly above ambient to 45°C
100-5JPN, 120-5JPN:	From slightly above ambient to 65°C
INTERIOR DIMENSIONS:	
100(IDE), 100JPN, 100-5JPN, 101, 105, 106:	12"W x 12"D x 8"H (30 x 30 x 20 cm)
120, 120JPN, 120-5JPN, 121, 125, 126:	12"W x 12"D x 12"H (30 x 30 x 30 cm)
150, 150JPN, 152:	13-7/16"W x 13-11/32"D x 12-11/16"H (36 x 34 x 32 cm)
EXTERIOR DIMENSIONS:	
100(IDE), 100JPN, 100-5JPN, 101, 105, 106:	14-3/8"W x 13-11/32"D x 11-5/16"H (37 x 34 x 30 cm)
120, 120JPN, 120-5JPN, 121, 125, 126:	14-3/8"W x 13-11/32"D x 15-5/16"H (37 x 34 x 41 cm)
150, 150JPN, 152:	13-7/16"W x 13-11/32"D x 15-5/16"H (37 x 34 x 41 cm)
CHAMBER VOLUME:	
100(IDE), 100JPN, 100-5JPN, 101, 105, 106:	0.67 cubic feet (19 liters)
120, 120JPN, 120-5JPN, 121, 125, 126:	1.00 cubic feet (28 liters)
150, 150JPN, 152:	1.32 cubic feet (37 liters)
SHIPPING WEIGHT:	
100(IDE), 100JPN, 100-5JPN, 101, 105, 106:	15 lbs. (7 kg)
120, 120JPN, 120-5JPN, 121,125, 126:	27 lbs. (12 kg)
150, 150JPN, 152:	33 lbs. (15 kg)

UNIT'S ENVIRONMENTAL OPERATING CONDITIONS:

POLLUTION DEGREE*:	2
INSTALLATION CATEGORY*:	II
ALTITUDE:	2000 Meters MSL (Mean Sea Level)
HUMIDITY:	80% maximum, non-condensing
ELECTRICAL SUPPLY:	120VAC or 240VAC
VOLTAGE TOLERANCE:	±10% of normal rated line
TEMPERATURE:	15°C to 40°C
PRODUCT USAGE:	This product is intended for use indoors **only**

*Refer to IEC 664-1

SECTION 4

INSTALLATION

√SHIPPING CARTON:

This should be inspected upon delivery. When received, carefully examine for any shipping damage before unpacking. If damage is discovered, the delivering carrier should both specify and sign for the damage on your copy of the delivery receipt.

Open the carton carefully making certain that all parts are accounted for before packaging materials are discarded—after unpacking, if damage is found, promptly report it to the carrier and request a damage inspection promptly.

IMPORTANT: Failure to request an inspection of damage within a few days after receipt of shipment absolves the carrier from any liability for damage: you must call for a damage inspection promptly.

LOCATION:

Place the unit on a level table or bench where it will be operated, away from drafts and wide variations in ambient temperature, near a power supply source that matches the unit nameplate requirements. Allow clearance around the unit for free air convection, accessory attachment and user convenience

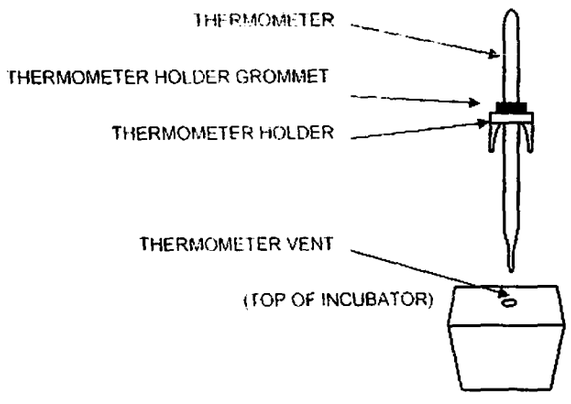
The incubator door opens from the left side.

THERMOMETER INSTALLATION:

The thermometer holder doubles as a vent fixture on the top of the unit. Place the grommet in the hole at the top of the thermometer holder. Push the thermometer, supplied with the unit, through the grommet until 3-inches of the thermometer (including the bulb) extends through the holder. Push the holder into the vent on top of the cabinet until about 1/4-inch of the holder is exposed.

NOTE: IT MAY BE NECESSARY TO SQUEEZE THE 3 PRONGS OF THE THERMOMETER HOLDER TO INSTALL IT MORE EASILY.

The thermometer bulb should extend about 2-inches into the chamber. Turn the thermometer in its holder for easy reading.



SECTION 5

OPERATION

DANGER: DO NOT USE IN THE PRESENCE OF FLAMMABLE OR COMBUSTIBLE MATERIALS OR EXPLOSIVE GASES. DO NOT USE IN THE PRESENCE OF PRESSURIZED OR SEALED CONTAINERS—FIRE OR EXPLOSION MAY RESULT, CAUSING DEATH OR SEVERE INJURY.

WARNING: DO NOT HEAT ANY SUBSTANCE ABOVE A TEMPERATURE WHICH WILL CAUSE IT TO EMIT TOXIC FUMES—DEATH OR SEVERE INJURY MAY RESULT.

START-UP.

1. When the cordset is plugged into an outlet, the incubator is ready for use. Turn the power switch **ON**. Note thermostat knob on lower right hand side of incubator—rotate the thermostat knob clockwise to increase the temperature, counterclockwise to lower the temperature. The status lamp is lit when the heaters are energized

2. Allow one hour for the temperature inside the chamber to stabilize; then check the thermometer.

3. Repeat Steps 1 and 2 until the desired setting is obtained. The incubator is then ready to be loaded.

4 Load the incubator so that items or specimens are spaced far enough apart to allow for proper air circulation.

5. Insofar as possible, keep the incubator door closed in order to reduce possibility of fungus growth starting from airborne organisms entering the chamber.

INSTALLATION: (Con't)

SHELF INSTALLATION.

100 series comes with 1 fixed shelf. 120 series units are supplied with two aluminum shelves: one is fixed to the bottom of the chamber, the other is placed on top. 150 series has two removable, nonadjustable, perforated aluminum shelves.

ELECTRICAL REQUIREMENTS:

120 VAC models require a 120 VAC, 50/60 Hz power source. They are supplied with a 3-wire line cord. It should be plugged into an outlet designed for 3-prong plugs. If an extension cord is used, it also should be the 3-wire grounded type. For an outlet designed to accept 2-prong plugs (ungrounded), it is required that a qualified electrician replace the outlet with a new grounded type.

240 VAC models require a 240 VAC, 50/60 Hz power source. Because of the variety of plug configurations in use worldwide for 240 VAC power, the unit is furnished with the plug removed. The user must install a plug to conform with local code and configuration requirements.

100 VAC models require a 100 VAC, 50/60 Hz power source. Because of the variety of plug configurations in use worldwide for 100 VAC power, the unit is furnished with the plug removed. The user must install a plug to conform with local code and configuration requirements.

If a plug must be installed, use only the 3-prong grounded type, rated for the unit load requirements and matching the power outlet. Make sure the green ground wire is secured to the plug ground terminal.

NOTE: LEAVE UNIT DISCONNECTED WHEN NOT IN USE.

SECTION 6

MAINTENANCE

BE ADVISED:

NOTE: MAKE NO ATTEMPT TO SERVICE OR REPAIR A LAB-LINE PRODUCT UNDER WARRANTY BEFORE CONSULTING YOUR LAB-LINE DEALER. AFTER THE WARRANTY PERIOD, SUCH CONSULTATION IS STILL ADVISED, ESPECIALLY WHEN THE REPAIR MAY BE TECHNICALLY SOPHISTICATED OR DIFFICULT.

IF ASSISTANCE IS NEEDED BEYOND WHAT THE DISTRIBUTOR CAN PROVIDE, PLEASE CALL THE LAB-LINE CUSTOMER RELATIONS DEPARTMENT AT (563) 556-2241 OR (800) 522-5463. NO MERCHANDISE, HOWEVER, SHOULD BE RETURNED DIRECTLY TO LAB-LINE WITHOUT PRIOR APPROVAL FROM LAB-LINE.

CAUTION: DISCONNECT PLUG FROM ELECTRICAL OUTLET BEFORE ATTEMPTING ANY MAINTENANCE OR REPAIR OF THIS UNIT.

ROUTINE CLEANING:

Clean up any spills immediately. Remove the plug from its outlet for a thorough cleaning between incubation periods. The chamber interior and shelves can be cleaned with a mild detergent or soap and water. Do not use abrasives or metallic scouring pads on any part of the unit.

To clean the viewing door use a soft damp cloth. A regular window cleaning solution can be used. Avoid scratching the acrylic plastic.

REPAIRS AND SERVICING:

Unplug the unit from its outlet before servicing. The thermostat is easily accessible inside the chamber.

A heater is located under the floor of the chamber. Turn the incubator upside down and remove 4 screws from the bottom of the cabinet. Lift out the bottom and the insulation covering the heater. Disconnect the heater leads and remove 2 nuts that hold the heater to the floor of the chamber.

SECTION 7

REPLACEMENT PARTS

DESCRIPTION	PART NUMBER
Temperature Control Knob:	560-230-00
Cordset:	470-187-00
Door, Acrylic (Models 105, 106):	540-262-00
Door, Acrylic (Models 125, 126, 150):	540-261-01
Door, Acrylic (Models 150):	540-261-00
Door Handle:	560-263-00
Thermometer Holder Grommet:	790-022-00
Thermometer:	910-136-00
Heater, 100/120V units:	340-152-00
Heater, 240V units:	340-152-01
Heater, 100V/100W (100-5JPN, 120-5JPN):	340-152-02
Heater, 100/120V units (150):	340-209-00
Heater, 240V units (152):	340-209-01
Tension Catch:	600-124-00
Hinge:	570-341-00
Rubber Feet (4):	790-214-00
Shelf (100, 105, 120, 125 Series):	172-134-00
Shelf, Lower (150 Series):	172-135-00
Shelf, Upper (120, 125, 150 Series):	172-136-00
Status Lamp Base:	360-233-01
Status Lamp Lens (amber):	360-235-00
Power Switch-120V:	440-359-00
Power Switch-220V:	440-292-00
Thermometer Holder:	910-039-00
Thermostat:	920-273-00
Wiring Schematic:	228-604-00

NEED A PART? CALL THE LAB-LINE PARTS HOTLINE.
CALL: (563) 556-2241 or (800) 522-5463; FAX: (563) 589-0516.

LAB-LINE RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT PRIOR NOTICE.

WARRANTY

LAB-LINE INSTRUMENTS, INC. ("Lab-Line") warrants that the product manufactured by Lab-Line shall be free of defects in materials for a period of time defined on the following page from the first to occur of (i) the date the product is sold by Lab-Line or (ii) the date the product is purchased by the original retail customer (the "Commencement Date"). Except as expressly stated above.

LAB-LINE MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO THE PRODUCTS AND EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF DESIGN, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

An authorized representative of Lab-Line must perform all warranty inspections. In the event of a defect covered by Lab-Line's warranty, Lab-Line shall, as its sole obligation and exclusive remedy, provide free replacement parts to remedy the defective product.

Lab-Line's warranty provided hereunder shall be null and void and without further force or effect if there is any (i) repair made to the product by a party other than Lab-Line or its duly authorized service representative, (ii) misuse (including use inconsistent with written operating instructions for the product), mishandling, contamination, overheating, modification or alteration of the product by any customer or third party or (iii) use of replacement parts that are obtained from a party who is not an authorized dealer of Lab-Line.

IN NO EVENT SHALL LAB-LINE BE LIABLE TO ANY PARTY FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR ANY DAMAGES RESULTING FROM LOSS OF USE OR PROFITS, ANTICIPATED OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THE SALE, USE OR PERFORMANCE OF ANY PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), ANY THEORY OF STRICT LIABILITY OR REGULATORY ACTION.

The name of your nearest authorized Lab-Line dealer may be obtained by calling 1-800-522-5463.

Barnstead

Your Lab Starts Here

WARRANTY

12 MONTH PARTS WARRANTY:

- All Environmental Chambers
- Low Temperature B. O. D. Incubators
- Animal Study Chamber
- Controlled Environment Centers
- Biological Work Station
- Refrigerators, Freezers
- Chromatography Refrigerators (5 year parts warranty on compressor only)
- Large Capacity Refrigerators and Freezers (5 year parts warranty on compressor only)

24 MONTH PARTS WARRANTY:

- Frame Clamps, Frame Sets, Lab Jacks
- Saybolt Viscosimeter
- Timers, Samplers, Flasks
- Saf-T-Shield, Safety Tongs
- All Incubators & Ovens
- Dual Action Open Air Shaker
- Reciprocating Shakers (open air and water bath)
- Rockers and Rotators
- Low Cost Shakers
- Environ Blok Shaker
- Titer Plate Shaker
- Multi Wrist Shaker
- Water Baths (excluding Aquabaths), Ultrasonic Cleaners
- Slide Warmers
- Mixers, Stirrers, Hotplates
- Thermal Cyclers
- Blok Heaters
- Aquabaths, lifetime warranty on heaters

LIFETIME PARTS WARRANTY:

- All **ORBITAL** Shakers (not carrying a 24 month parts warranty) offer a lifetime parts warranty on the drive mechanism and a 5 year warranty on all other parts

Refrigerated Orbital Shakers carry a lifetime warranty on the drive mechanism, 1-year parts warranty on the compressor, and a 5 year warranty on all other parts.